DIN EN ISO 15118-10:2025-05 (E)

Road vehicles - Vehicle to grid communication interface - Part 10: Physical layer and data link layer requirements for single-pair Ethernet (ISO 15118-10:2025); English version EN ISO 15118-10:2025

Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Abbreviated terms **2**
5 Conventions **3**
5.1 Definition of OSI based services 3
5.2 Requirement structure 3
6 System architecture **3**
6.1 Communication layers 3
6.1.1 Architecture 3
6.1.2 Layer 2 interfaces 4
6.1.3 Communication media 4
6.1.4 Data SAP 4
6.1.5 Service primitive concept of OSI layered architecture 6
6.2 Physical channel 6
6.2.1 General 6
6.2.2 Nodes 7
6.2.3 Requirements for the physical channel 7
6.2.4 Schematic of the coupling network 7
6.3 System requirements 8
6.3.1 Overview of basic signalling 8
6.3.2 Electric vehicle supply equipment (EVSE) 9
6.3.3 Electric vehicle (EV) 9
7 Connection coordination **10**
7.1 General 10
7.2 Overview 10
7.3 Plug-in phase 10
7.3.1 General 10
7.3.2 EVSE side 10
7.3.3 EV side 10
7.4 Initialization phase 10
7.5 Loss of communication 10
7.5.1 General 10
7.5.2 EVSE side 11
7.5.3 EV side 11
7.6 Sleep mode and wake-up 11
7.6.1 General 11
7.6.2 Entering sleep mode 11
7.6.3 Wake-up 11
7.7 During a charge pause 12
8 Timing and constants **12**
9 EV-EVSE communication initialization **13**
9.1 Overview 13
9.2 Errors 13
10 EMC requirements **13**
Bibliography **14**